

**Claims**

1. A medicament for cerebral protection, comprising xenon or a xenon-containing gas mixture.

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2. The medicament as claimed in claim 1, characterized in that xenon is present in pharmacologically effective amount.

3. The medicament as claimed in claim 1 or 2, characterized in that the

10 medicament for cerebral protection comprises as remainder oxygen or oxygen and an inert gas.

4. The medicament as claimed in any of claims 1 to 3, characterized in that the medicament is used as combination product with a gaseous, liquid or solid preparation comprising an NO source, for simultaneous, separate or sequential 15 use.

5. A medicament, comprising xenon and an NO source or a xenon-containing gas mixture and an NO source, where xenon and NO source are present in 20 pharmacologically effective concentration.

6. The use of xenon or of a xenon-containing gas mixture and, where appropriate, of an NO source to produce a medicament for the treatment of impairments of blood flow in the brain, to produce a medicament for the treatment of impairment

25 of cerebral perfusion, to produce a medicament for the treatment of cognitive impairments, to produce a medicament for cerebral protection, to produce a medicament for the prophylaxis and/or therapy of impairments of cognitive performance, also postoperatively, to produce a medicament for the treatment of stroke, to produce a medicament for the prophylaxis of stroke, to produce a

30 medicament for improving the oxygen supply in the brain, to produce a medicament for the treatment of post-ischemia syndrome, to produce a medicament for promoting blood flow in the brain, to produce a medicament for the treatment or prophylaxis of postoperative cognitive dysfunction or to produce a medicament for cerebral vasodilatation.

7. The use of xenon or of a xenon-containing gas mixture and, where appropriate, of an NO source for cerebral protection, for cerebral vasodilatation or for the treatment, therapy or prophylaxis of impairments of cognitive performance or cognitive dysfunction.